

# 9043 Wireless Three Channel Vibration Analyzer & Data Collector

# **Instruction Manual**



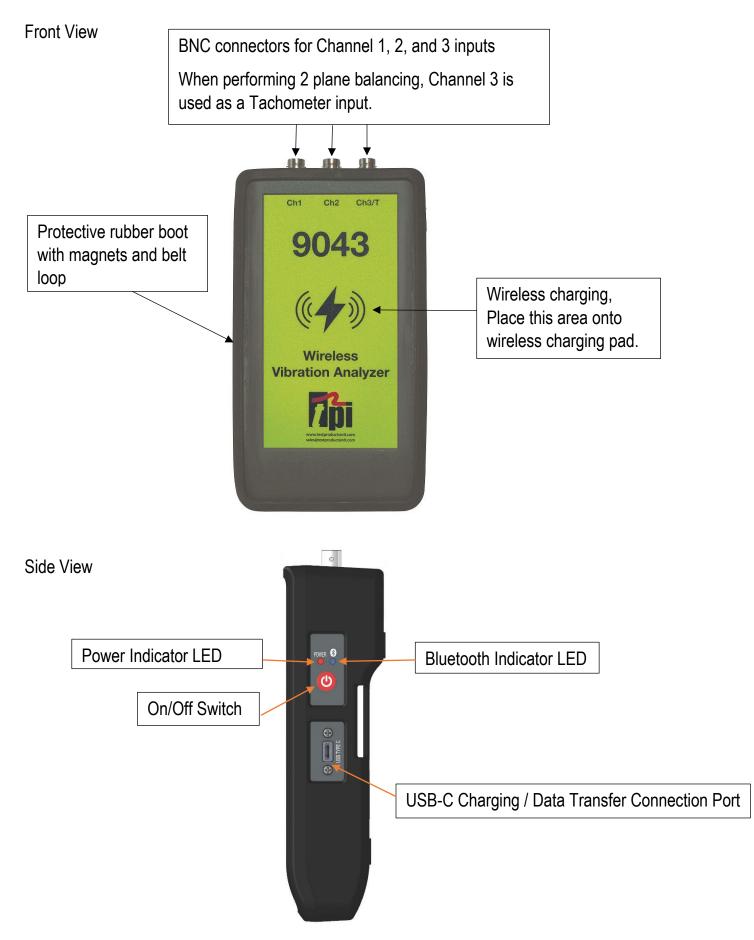
# **Description**

The 9043 is a 3-channel vibration analyzer and data collector with 2 plane balancing capability. It features true simultaneous 3 channel capture for versatility, 24-bit A/D converter for high resolution, and wireless communication to an Android tablet running the TPI Ultra III app.

Used in conjunction with Ultra III software the 9043 features include:

- 2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness
- 1kHz to 10kHz BDU range for identification of Bearing Condition
- High resolution (0.2 Hz) frequency spectra from 2 Hz to 10 kHz
- Single and Dual Plane Balancing as well as No tachometer (4-run) Balancing
- Screen Cursors Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
- Demod & Coast Down, Phase & Orbit Plots, Gap Voltage Display
- Download Routes with Inspection points
- Clear, easy-to-read and navigate touchscreen
- Proximity Probe Compatible
- Triaxial Sensor Compatible
- Wireless or USB-C Charging
- Long Battery Life 15 Hours Continuous
- Data transfer by USB-C where Bluetooth is not permitted
- Supplied in protective, magnetic, rubber boot for hands free use.
- DC to 30kHz Frequency Range
- 100 to 51,200 Line Resolution
- 108dB Dynamic Range

# **Overview**



## Charging the 9043

The 9043 can be charged using a wireless charging pad or the USB-C connection port.

Wireless Charging

Place the 9043 face down on the charging pad. Make sure the charge indication icon on the 9043 is placed on the pad. Please see the charge indication icon below.



**USB-C** Charging

Connect the USB-C cable to the USB-C connection port on the 9043. Plug the USB puck into a suitable outlet. See the 9043 USB-C connection port below.



The GREEN power indication LED will flash while the 9043 is charging.

#### Turning the 9043 On and Off

#### Powering On

Press & hold the On/off button to turn the 9043 on. The GREEN power LED will illuminate.

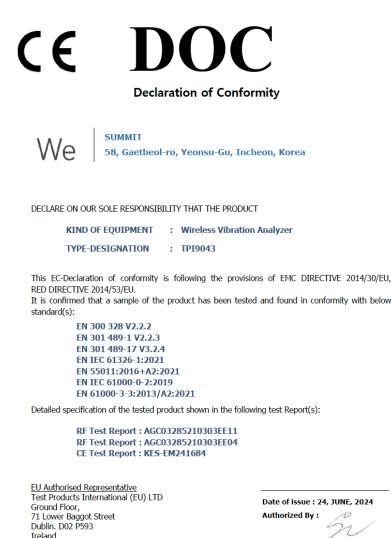
#### **Powering Off**

Press and hold the power button U until the 9043 turns off.

#### Using the 9043

- 1. Turn the 9043 on. The 9043 is ready to be connected to an Android tablet running the Ultra III app.
- 2. Open the Ultra III app on the Android tablet & enter Meter Mode. The Ultra III app will search for the 9043. When connected to the Android tablet the Bluetooth LED will illuminate
- 3. Make required accelerometer/tachometer/sensor connections to the BNC connectors on the 9043.
- 4. Use the Ultra III app to perform measurements. Please see the Ultra III app instruction manual for additional information.

**NOTE:** The 9043 can also be connected to the Android tablet directly using the USB-C data/charging cable. This is useful in areas where Bluetooth connection is not allowed.



# **SPECIFICATIONS**

9043 Signal Parameters		
Simultaneous Channel Capture	3 Channels	
Input options	IEPE (Powered and Unpowered) DC or AC voltage	
Amplitude	+/-0.5V, +/-5V, +/-30V	
Frequency Range / Resolution	1-Channel Mode I DC to 30kHz I 100 to 51,200 Lines 3-Channel Simultaneous I DC to 10kHz I 100 to 12,800 Lines	
BDU - Bearing Noise - Frequency Range	1kHz - 10kHz	
Dynamic Range	108dB	
A/D Converter	24 bit	
9043 Sensor Inputs		
Sensor Connection	3-Standard BNC Connectors	
Sensor Types	millivolt sensors (e.g. accelerometer, velocity, displacement, temperature, tacho etc.)	
Triaxial Accelerometer Compatible	Yes	
Proximity Probe Compatible	Yes	
Tachometer Input	Yes	
9043 Information		
Connection	Bluetooth or USB-C	
Battery Life (Continuous Use)	Up to 15 hours	
Charger	5V @ 1A	
Operating Temperature	32 to 113°F (0 to 45°C) – charging 32 to 140°F (0 to 60°C) – discharging	
Storage Temperature	-4 to 140°F (-20 to 60°C)	
Dimensions & Weight	3.9" x 7.4" x 2.0" (98mm x 187mm x 50mm) / 15.1oz (427g)	
9043 Headphone Compatible		
Bluetooth (A2DP)	Yes	
ULTRA III App		
Screen Cursors	Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform	
Band Alarms	Yes	
Peak to Peak Displacement	Yes	
No tachometer (4-run) Balancing	Yes	
Single & Dual Plane Balancing	Yes	
Balancing RPM (Range) Low Limit	120 RPM	
Diagnostic Features	Demod, Coast Down, Phase & Orbit Plots, Gap Voltage	
Ultra III Route Transfer		
USB-C	Yes	
Bluetooth	Yes	
Cloud	Yes	



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## STANDARD ACCESSORIES

A9043 – Protective rubber boot with magnets and belt loop

A9113 – USB-C to USB-C data/charging cable

A9114 – Universal USB charging puck

Other standard accessories vary by kit configuration.

#### WARRANTY

This product is warranted to the purchaser against defects in material and workmanship for three years from the date of purchase.

**Covered by Warranty:** Repair parts and labor; or replacement of the product at company's option. Normal transportation charges to the purchaser are also covered.

**Not Covered by Warranty:** Damages to the product which are the result of abuse, improper use or maintenance are not covered. Any other expense, consequential damages, incidental damages, or incidental expenses including damages to property are not covered. Transportation expenses to the company are not covered.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

**To Obtain Warranty Performance:** Include with the product: your name, address, phone number, written description of the problem and proof of purchase date. Carefully package and return to:

TPI, Inc.	TPI Canada	TPI, Europe Ltd
9615 SW Allen Blvd.	342 Bronte Rd. S., l	nit 6 Unit 6, Rutherford Way Industrial
Estate		
Beaverton, OR 97005	Milton, Ontario L9T	5B7 Rutherford Way, Crawley
USA	Canada	West Sussex. RH10 9LN
503-520-9197	905-693-8558	+44 (0) 1293 53019
www.testproductsintl.com	www.tpicanada.com	www.tpieurope.com

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